UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,885	07/29/2003	David N. Nichols	86533PCW	5571

7590 03/26/2008

Thomas H. Close
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER	
GEBREMARIAM, SAMUEL A	
ART UNIT	**PAPER NUMBER**
2811	

MAIL DATE	DELIVERY MODE
03/26/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID N. NICHOLS
and DAVID L. LOSEE

Appeal 2007-4080
Application 10/629,885
Technology Center 2800

Decided: March 26, 2008

Before CHARLES F. WARREN, PETER F. KRATZ, and
JEFFREY T. SMITH, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicants appeal to the Board from the decision of the Primary Examiner finally rejecting claims 1 through 3 in the Office Action mailed March 1, 2005. 35 U.S.C. §§ 6 and 134(a) (2002); 37 C.F.R. § 41.31(a) (2006).

We affirm the decision of the Primary Examiner.

Claim 1 illustrates Appellants' invention of an image sensor, and is representative of the claims on appeal:

1. An image sensor comprising:

(a) an image sensing portion for receiving incident light that is converted to a plurality of charging packets:

(b) a transfer mechanism for transferring the charge packets from the image sensing portion; and

(c) an output structure that receives the charge packets from the transfer mechanism for transporting output signals from the image sensor, wherein the output structure comprises a transparent conductor for a gate electrode.

The Examiner relies upon the evidence in these references (Ans. 2):

Matsumoto	4,878,120	Oct. 31, 1989
Stevens	5,192,990	Mar. 8, 1993

Appellants request review of the ground of rejection of claims 1 through 3 under 35 U.S.C. § 103(a) as being unpatentable over Stevens in view of Matsumoto. Br. 2; Ans. 3.

Appellants argue the claims in the ground of rejection as a group. Br. in entirety. Thus, we decide this appeal based on claim 1. 37 C.F.R. § 41.37(c)(1)(vii) (2006).

The issue in this appeal is whether one of ordinary skill in this art armed with the knowledge in the art, prima facie, would have been led by the evidence of record to substitute transparent gate electrodes of indium tine oxide (ITO), acknowledged to have been known by Appellants (Spec 1:24-26) and shown in image sensors by Matsumoto (e.g., col. 6, ll. 1-16), for the non-transparent gate electrodes of a transport conductor of an output structure of an image sensing device, acknowledged to have been known by

Appellants (Spec 1:15-22) and shown by Stevens (e.g., col. 2, ll. 44-68 and Figs. 1 and 4).

There is no dispute with respect to the facts acknowledged by Appellants in the Specification and found by the Examiner in Stevens and Matsumoto. We find no evidence in the record establishing that one of ordinary skill in this art would not have expected the transparent gate electrodes of ITO acknowledged by Appellants and shown by Matsumoto to capably function as a conductor for a gate electrode in an output structure, the property of transparency notwithstanding. Indeed, Dr. Nichols testimonial evidence in his Declaration under 37 C.F.R. § 1.132[1] points out only that the use of transparent gate electrode for image-capture regions of the sensor is well known, but the use of the transparent gate electrode is not disclosed for other regions of the sensor which "are often shielded." Nichols Declaration ¶¶ 3-5.

Thus, we determine the combined teachings of Stevens and Matsumoto, the scope of which has been determined, provide convincing evidence supporting the Examiner's position that the claimed invention encompassed by claim 1, requiring a transparent conductor for a gate electrode in the output structure of an image sensor, which can be an ITO transparent conductor (dependent claim 2), would have been prima facie obviousness to one of ordinary skill in the solid state image sensor arts armed with the knowledge in the art as evinced by Stevens and Matsumoto and acknowledged by Appellants.

---

[1] Declaration filed December 10, 2004 (Nichols Declaration), and cited in the Evidence Appendix to the Brief. Br. 7.

Upon reconsideration of the record as a whole in light of Appellants' contentions, we are of the opinion that Appellants' contentions do not successfully rebut the prima facie case. Appellants' contentions that the Examiner's position is one of "obvious-to-try," and the references "teach away" from the claimed invention on the basis that "the use of this [ITO] material is anticipated to be undesirable because it is anticipated to create 'noise' in the output circuitry" (Br. 2-4), are not supported by the record. We stated above that we found no evidence in the record supporting a performance difference between the non-transparent and ITO conductors for gate electrodes, and indeed, no other difference than transparency. Thus, Appellants' contention based on "anticipated" performance is not supported on the record. Unsupported contentions of counsel are entitled to little, if any, weight. *See, e.g., In re De Blauwe*, 36 F.2d 699, 705 (Fed. Cir. 1984); *In re Payne*, 606 F.2d 303, 315 (CCPA 1979); *In re Lindner*, 457 F.2d 506, 508 (CCPA 1972).

Thus, in the absence of evidence that one of ordinary skill in this art would have reasonably expected an ITO conductor for a gate electrode to be incapable of performing in an output structure of an image sensor, we are of the opinion that the substitution of such a conductor for a non-transparent conductor would have been prima facie obvious to this person. Indeed, this person would have reasonably predicted achieving the same or similar results with the ITO conductor. *See, e.g., KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007) (a patent claiming a combination of elements known in the prior art is obvious if the improvement is no more than the predictable use of the prior art elements according to their established functions); *In re Siebentritt*, 372 F.2d 566, 567-68 (CCPA 1967) (express

suggestion to interchange methods which achieve the same or similar results is not necessary to establish obviousness). In this respect, it sufficient that this person recognized the interchangeability of the conductors for the same purpose even though not addressing a particular problem. *See, e.g., KSR*, 127 S. Ct. at 1740-41, *quoting In re Kahn*, 441 F.3d 977, 988, (Fed. Cir. 2006) ("[A]nalysis [of whether the subject matter of a claim would have been obvious] need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ."); *In re Sovish*, 769 F.2d 738, 743 (Fed. Cir. 1985) (skill is presumed on the part of one of ordinary skill in the art); *In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969)("Having established that this knowledge was in the art, the examiner could then properly rely, as put forth by the solicitor, on a conclusion of obviousness 'from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference.'").

Furthermore, the elements constituting a "teaching away" from the claimed invention are missing from the record. *See, e.g., Kahn*, 441 F.3d at 985-89 ("A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." (quoting *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994))); *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (prior art "disclosure does not criticize, discredit, or otherwise discourage the solution claimed").

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of obviousness found in the combined teachings of Stevens and Matsumoto with Appellants' countervailing evidence of and argument for nonobviousness and conclude that the claimed invention encompassed by appealed claims 1 through 3 would have been obvious as a matter of law under 35 U.S.C. § 103(a).

The Primary Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2007).

AFFIRMED

cam

THOMAS H. CLOSE
PATENT LEGAL STAFF
EASTMAN KODAK COMPANY
343 STATE STREET
ROCHESTER, NY 14650-2201